

# **VERDAD RESOURCES**

**WATTENBERG FIELD  
1N-64W-19 CHIVE & SHALLOT PAD  
SHALLOT 1930-20H**

**Plan A**

**Plan: Design #1**

## **Standard Planning Report**

**19 May, 2023**

Project: WATTENBERG FIELD  
Site: 1N-64W-19 CHIVE & SHALLOT PAD  
Well: SHALLOT 1930-20H  
Wellbore: Plan A  
Design: Design #1

# VERDAD RESOURCES

## CASING DETAILS

TVD	MD	Name	Size
2070.00	2114.48	9 5/8"	9-5/8

**SHL**  
1875' FSL  
1755' FWL

**LP/TPZ**  
2640' FSL  
1891' FWL

**BPZ**  
460' FSL  
1910' FWL

**BHL**  
370' FSL  
1910' FWL

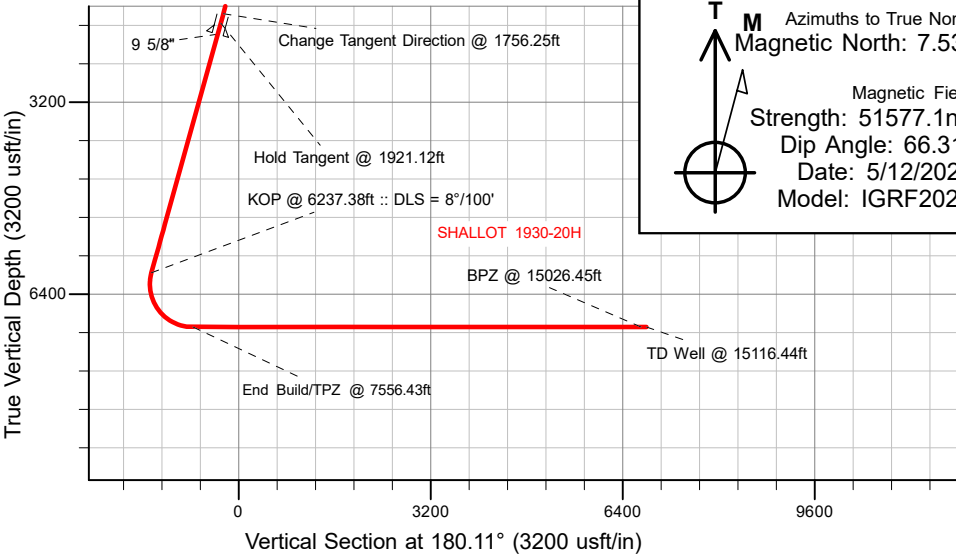
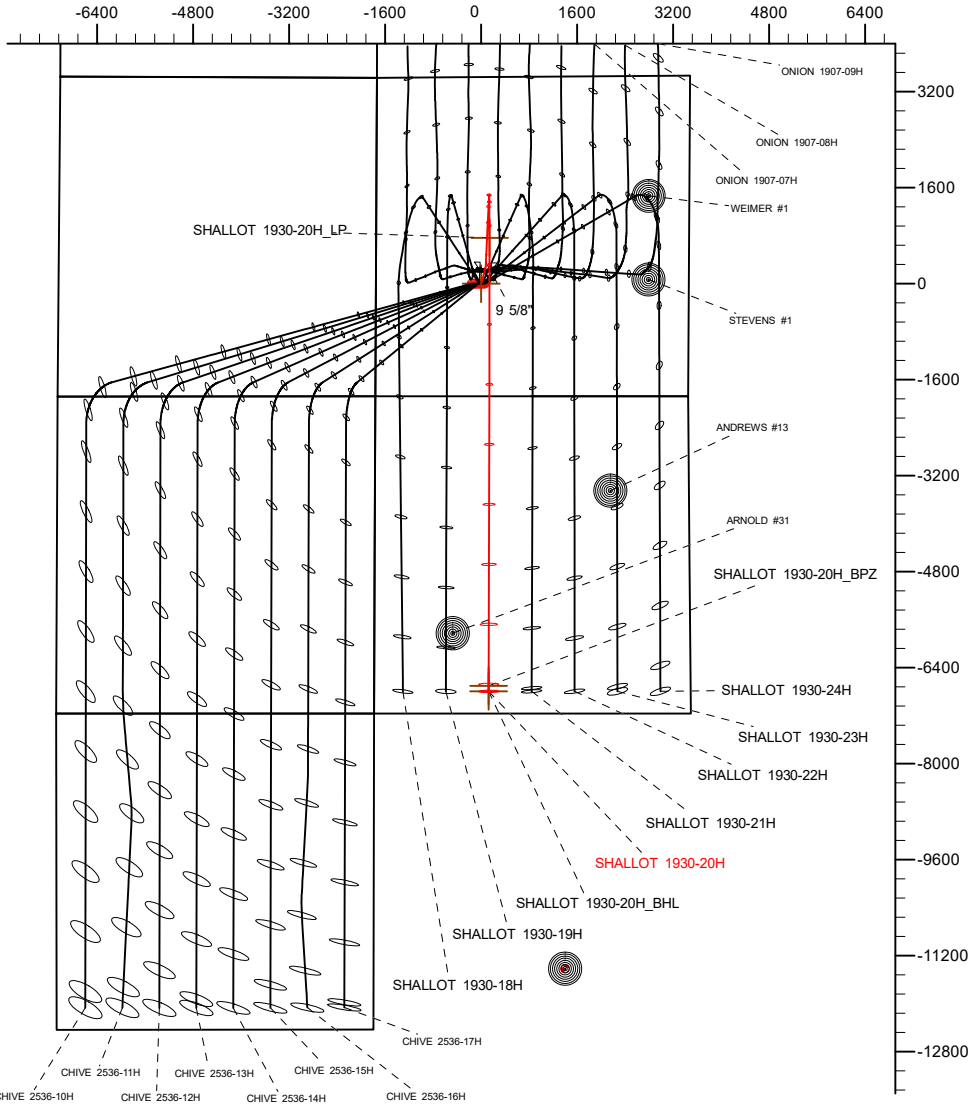
## SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dieg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
379.25	0.00	0.00	379.25	0.00	0.00	0.00	0.00	0.00	
1156.25	15.54	15.00	1146.76	101.16	27.11	2.00	15.00	-101.21	
1756.25	15.54	15.00	1724.82	256.43	68.71	0.00	0.00	-256.56	
1921.12	15.54	2.67	1883.71	299.83	75.46	2.00	-95.94	-299.98	
6237.38	15.54	2.67	6042.18	1454.95	129.32	0.00	0.00	-1455.20	
7556.43	90.00	180.11	6950.00	764.86	139.32	8.00	177.34	-765.13	
15116.44	90.00	180.11	6950.00	-6795.14	125.18	0.00	0.00	6794.89	SHALLOT 1930-20H_BHL

## WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	Northing	Easting	Latitude	Longitude
SHALLOT 1930-20H_SHL	0.00	1256776.69	3252973.13	40.034702	-104.596545
SHALLOT 1930-20H_LP	6950.00	1257543.04	3253104.56	40.036802	-104.596047
SHALLOT 1930-20H_BPZ	6950.00	1250073.18	3253166.78	40.016295	-104.596097
SHALLOT 1930-20H_BHL	6950.00	1249983.18	3253167.53	40.016048	-104.596098

West(-)/East(+) (3200 usft/in)



## WELL DETAILS: SHALLOT 1930-20H

GL = 5011'  
RKB = 20' @ 5031.00usft (RIG)

Plan: Design #1 (SHALLOT 1930-20H/Plan A)

Date: 5/19/2023

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SHALLOT 1930-20H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5031.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5031.00usft (RIG)
<b>Site:</b>	1N-64W-19 CHIVE & SHALLOT PAD	<b>North Reference:</b>	True
<b>Well:</b>	SHALLOT 1930-20H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Design #1		

<b>Project</b>	WATTENBERG FIELD		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

Site		1N-64W-19 CHIVE & SHALLOT PAD				
Site Position:		Northing:	1,256,775.08	usft	Latitude:	40.034702
From:	Map	Easting:	3,252,813.14	usft	Longitude:	-104.597116
Position Uncertainty:		0.00	usft	Slot Radius:	13-3/16	"

Well		SHALLOT 1930-20H				
Well Position	+N/-S	0.00 usft	Northing:	1,256,776.69 usft	Latitude:	40.034702
	+E/-W	0.00 usft	Easting:	3,252,973.13 usft	Longitude:	-104.596545
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft	Ground Level:	5,011.00 usft
Grid Convergence:		0.58 °				

<b>Wellbore</b>	Plan A				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF202013	5/12/2023	7.53	66.31	51,577.06916047

<b>Design</b>	Design #1				
<b>Audit Notes:</b>					
<b>Version:</b>		<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	180.11	

<b>Plan Survey Tool Program</b>	<b>Date</b>	5/15/2023			
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.00	2,070.00	Design #1 (Plan A)	ISCWSA MWD	
				Fixed:v2:standard declination	
2	2,070.00	15,116.44	Design #1 (Plan A)	ISCWSA MWD	
				Fixed:v2:standard declination	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well SHALLOT 1930-20H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 5031.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 5031.00usft (RIG)
Site:	1N-64W-19 CHIVE & SHALLOT PAD	North Reference:	True
Well:	SHALLOT 1930-20H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Design #1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
379.25	0.00	0.00	379.25	0.00	0.00	0.00	0.00	0.00	0.00	
1,156.25	15.54	15.00	1,146.76	101.16	27.11	2.00	2.00	0.00	15.00	
1,756.25	15.54	15.00	1,724.82	256.43	68.71	0.00	0.00	0.00	0.00	
1,921.12	15.54	2.67	1,883.71	299.83	75.46	2.00	0.00	-7.48	-95.94	
6,237.38	15.54	2.67	6,042.19	1,454.95	129.32	0.00	0.00	0.00	0.00	
7,556.43	90.00	180.11	6,950.00	764.86	139.32	8.00	5.64	13.45	177.34	
15,116.44	90.00	180.11	6,950.00	-6,795.14	125.18	0.00	0.00	0.00	0.00	SHALLOT 1930-20H_

# Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SHALLOT 1930-20H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5031.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5031.00usft (RIG)
<b>Site:</b>	1N-64W-19 CHIVE & SHALLOT PAD	<b>North Reference:</b>	True
<b>Well:</b>	SHALLOT 1930-20H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
379.25	0.00	0.00	379.25	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 379.25ft									
400.00	0.41	15.00	400.00	0.07	0.02	-0.07	2.00	2.00	0.00
500.00	2.41	15.00	499.96	2.46	0.66	-2.46	2.00	2.00	0.00
600.00	4.41	15.00	599.78	8.21	2.20	-8.22	2.00	2.00	0.00
700.00	6.41	15.00	699.33	17.33	4.64	-17.33	2.00	2.00	0.00
800.00	8.41	15.00	798.49	29.79	7.98	-29.81	2.00	2.00	0.00
900.00	10.41	15.00	897.14	45.59	12.22	-45.61	2.00	2.00	0.00
1,000.00	12.41	15.00	995.15	64.71	17.34	-64.74	2.00	2.00	0.00
1,100.00	14.41	15.00	1,092.42	87.12	23.34	-87.16	2.00	2.00	0.00
1,156.25	15.54	15.00	1,146.76	101.16	27.11	-101.21	2.00	2.00	0.00
Hold Tangent @ 1156.25ft									
1,200.00	15.54	15.00	1,188.91	112.48	30.14	-112.54	0.00	0.00	0.00
1,300.00	15.54	15.00	1,285.25	138.36	37.07	-138.43	0.00	0.00	0.00
1,400.00	15.54	15.00	1,381.60	164.24	44.01	-164.32	0.00	0.00	0.00
1,500.00	15.54	15.00	1,477.94	190.11	50.94	-190.21	0.00	0.00	0.00
1,600.00	15.54	15.00	1,574.29	215.99	57.87	-216.10	0.00	0.00	0.00
1,700.00	15.54	15.00	1,670.63	241.87	64.81	-241.99	0.00	0.00	0.00
1,756.25	15.54	15.00	1,724.82	256.43	68.71	-256.56	0.00	0.00	0.00
Change Tangent Direction @ 1756.25ft									
1,800.00	15.47	11.74	1,766.98	267.80	71.41	-267.94	2.00	-0.15	-7.46
1,900.00	15.50	4.24	1,863.36	294.19	75.12	-294.34	2.00	0.03	-7.49
1,921.12	15.54	2.67	1,883.71	299.83	75.46	-299.98	2.00	0.18	-7.44
Hold Tangent @ 1921.12ft									
2,000.00	15.54	2.67	1,959.71	320.94	76.44	-321.09	0.00	0.00	0.00
2,100.00	15.54	2.67	2,056.05	347.70	77.69	-347.85	0.00	0.00	0.00
2,114.48	15.54	2.67	2,070.00	351.58	77.87	-351.73	0.00	0.00	0.00
9 5/8"									
2,200.00	15.54	2.67	2,152.40	374.47	78.94	-374.62	0.00	0.00	0.00
2,300.00	15.54	2.67	2,248.74	401.23	80.18	-401.38	0.00	0.00	0.00
2,400.00	15.54	2.67	2,345.09	427.99	81.43	-428.15	0.00	0.00	0.00
2,500.00	15.54	2.67	2,441.43	454.75	82.68	-454.91	0.00	0.00	0.00
2,600.00	15.54	2.67	2,537.77	481.52	83.93	-481.68	0.00	0.00	0.00
2,700.00	15.54	2.67	2,634.12	508.28	85.18	-508.44	0.00	0.00	0.00
2,800.00	15.54	2.67	2,730.46	535.04	86.42	-535.20	0.00	0.00	0.00
2,900.00	15.54	2.67	2,826.81	561.80	87.67	-561.97	0.00	0.00	0.00
3,000.00	15.54	2.67	2,923.15	588.56	88.92	-588.73	0.00	0.00	0.00
3,100.00	15.54	2.67	3,019.50	615.33	90.17	-615.50	0.00	0.00	0.00
3,200.00	15.54	2.67	3,115.84	642.09	91.42	-642.26	0.00	0.00	0.00
3,300.00	15.54	2.67	3,212.18	668.85	92.66	-669.03	0.00	0.00	0.00
3,400.00	15.54	2.67	3,308.53	695.61	93.91	-695.79	0.00	0.00	0.00
3,500.00	15.54	2.67	3,404.87	722.37	95.16	-722.55	0.00	0.00	0.00
3,600.00	15.54	2.67	3,501.22	749.14	96.41	-749.32	0.00	0.00	0.00
3,700.00	15.54	2.67	3,597.56	775.90	97.66	-776.08	0.00	0.00	0.00
3,800.00	15.54	2.67	3,693.91	802.66	98.91	-802.85	0.00	0.00	0.00
3,900.00	15.54	2.67	3,790.25	829.42	100.15	-829.61	0.00	0.00	0.00
4,000.00	15.54	2.67	3,886.60	856.18	101.40	-856.38	0.00	0.00	0.00
4,100.00	15.54	2.67	3,982.94	882.95	102.65	-883.14	0.00	0.00	0.00
4,200.00	15.54	2.67	4,079.28	909.71	103.90	-909.91	0.00	0.00	0.00
4,300.00	15.54	2.67	4,175.63	936.47	105.15	-936.67	0.00	0.00	0.00

# Planning Report

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<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5031.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5031.00usft (RIG)
<b>Site:</b>	1N-64W-19 CHIVE & SHALLOT PAD	<b>North Reference:</b>	True
<b>Well:</b>	SHALLOT 1930-20H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,400.00	15.54	2.67	4,271.97	963.23	106.39	-963.43	0.00	0.00	0.00
4,500.00	15.54	2.67	4,368.32	989.99	107.64	-990.20	0.00	0.00	0.00
4,600.00	15.54	2.67	4,464.66	1,016.76	108.89	-1,016.96	0.00	0.00	0.00
4,700.00	15.54	2.67	4,561.01	1,043.52	110.14	-1,043.73	0.00	0.00	0.00
4,800.00	15.54	2.67	4,657.35	1,070.28	111.39	-1,070.49	0.00	0.00	0.00
4,900.00	15.54	2.67	4,753.69	1,097.04	112.63	-1,097.26	0.00	0.00	0.00
5,000.00	15.54	2.67	4,850.04	1,123.80	113.88	-1,124.02	0.00	0.00	0.00
5,100.00	15.54	2.67	4,946.38	1,150.57	115.13	-1,150.78	0.00	0.00	0.00
5,200.00	15.54	2.67	5,042.73	1,177.33	116.38	-1,177.55	0.00	0.00	0.00
5,300.00	15.54	2.67	5,139.07	1,204.09	117.63	-1,204.31	0.00	0.00	0.00
5,400.00	15.54	2.67	5,235.42	1,230.85	118.87	-1,231.08	0.00	0.00	0.00
5,500.00	15.54	2.67	5,331.76	1,257.61	120.12	-1,257.84	0.00	0.00	0.00
5,600.00	15.54	2.67	5,428.11	1,284.38	121.37	-1,284.61	0.00	0.00	0.00
5,700.00	15.54	2.67	5,524.45	1,311.14	122.62	-1,311.37	0.00	0.00	0.00
5,800.00	15.54	2.67	5,620.79	1,337.90	123.87	-1,338.14	0.00	0.00	0.00
5,900.00	15.54	2.67	5,717.14	1,364.66	125.11	-1,364.90	0.00	0.00	0.00
6,000.00	15.54	2.67	5,813.48	1,391.42	126.36	-1,391.66	0.00	0.00	0.00
6,100.00	15.54	2.67	5,909.83	1,418.19	127.61	-1,418.43	0.00	0.00	0.00
6,200.00	15.54	2.67	6,006.17	1,444.95	128.86	-1,445.19	0.00	0.00	0.00
6,237.38	15.54	2.67	6,042.19	1,454.95	129.32	-1,455.20	0.00	0.00	0.00
<b>KOP @ 6237.38ft :: DLS = 8°/100'</b>									
6,250.00	14.53	2.86	6,054.37	1,458.22	129.48	-1,458.47	8.00	-7.99	1.48
6,300.00	10.54	3.94	6,103.17	1,469.05	130.11	-1,469.30	8.00	-7.99	2.17
6,350.00	6.55	6.32	6,152.61	1,476.45	130.74	-1,476.70	8.00	-7.97	4.76
6,400.00	2.61	15.92	6,202.44	1,480.39	131.36	-1,480.64	8.00	-7.88	19.19
6,450.00	1.65	154.49	6,252.42	1,480.83	131.99	-1,481.08	8.00	-1.93	277.16
6,500.00	5.53	172.73	6,302.31	1,477.79	132.60	-1,478.05	8.00	7.77	36.47
6,550.00	9.51	175.85	6,351.87	1,471.28	133.21	-1,471.53	8.00	7.96	6.24
6,600.00	13.50	177.14	6,400.86	1,461.32	133.80	-1,461.58	8.00	7.98	2.58
6,650.00	17.50	177.85	6,449.03	1,447.98	134.37	-1,448.23	8.00	7.99	1.42
6,700.00	21.50	178.30	6,496.15	1,431.30	134.92	-1,431.56	8.00	7.99	0.90
6,750.00	25.49	178.61	6,542.00	1,411.38	135.46	-1,411.64	8.00	8.00	0.63
6,800.00	29.49	178.85	6,586.34	1,388.31	135.97	-1,388.56	8.00	8.00	0.47
6,850.00	33.49	179.03	6,628.97	1,362.20	136.45	-1,362.45	8.00	8.00	0.37
6,900.00	37.49	179.18	6,669.67	1,333.18	136.90	-1,333.44	8.00	8.00	0.30
6,950.00	41.49	179.30	6,708.25	1,301.39	137.32	-1,301.65	8.00	8.00	0.25
7,000.00	45.49	179.41	6,744.52	1,266.98	137.71	-1,267.25	8.00	8.00	0.21
7,050.00	49.49	179.50	6,778.30	1,230.14	138.06	-1,230.40	8.00	8.00	0.18
7,100.00	53.49	179.58	6,809.42	1,191.02	138.37	-1,191.28	8.00	8.00	0.16
7,150.00	57.49	179.65	6,837.75	1,149.83	138.65	-1,150.09	8.00	8.00	0.15
7,200.00	61.49	179.72	6,863.13	1,106.76	138.88	-1,107.03	8.00	8.00	0.13
7,250.00	65.49	179.78	6,885.44	1,062.03	139.07	-1,062.30	8.00	8.00	0.12
7,300.00	69.49	179.84	6,904.58	1,015.85	139.23	-1,016.12	8.00	8.00	0.12
7,350.00	73.49	179.90	6,920.46	968.45	139.33	-968.71	8.00	8.00	0.11
7,400.00	77.49	179.95	6,932.98	920.05	139.40	-920.32	8.00	8.00	0.11
7,450.00	81.49	180.00	6,942.10	870.90	139.42	-871.17	8.00	8.00	0.10
7,500.00	85.49	180.05	6,947.78	821.23	139.40	-821.50	8.00	8.00	0.10
7,550.00	89.49	180.10	6,949.97	771.29	139.33	-771.56	8.00	8.00	0.10
7,556.43	90.00	180.11	6,950.00	764.86	139.32	-765.13	8.00	8.00	0.10
<b>End Build/TPZ @ 7556.43ft</b>									
7,600.00	90.00	180.11	6,950.00	721.29	139.24	-721.56	0.00	0.00	0.00
7,700.00	90.00	180.11	6,950.00	621.29	139.05	-621.56	0.00	0.00	0.00
7,800.00	90.00	180.11	6,950.00	521.29	138.86	-521.56	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SHALLOT 1930-20H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5031.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5031.00usft (RIG)
<b>Site:</b>	1N-64W-19 CHIVE & SHALLOT PAD	<b>North Reference:</b>	True
<b>Well:</b>	SHALLOT 1930-20H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,900.00	90.00	180.11	6,950.00	421.29	138.68	-421.56	0.00	0.00	0.00
8,000.00	90.00	180.11	6,950.00	321.29	138.49	-321.56	0.00	0.00	0.00
8,100.00	90.00	180.11	6,950.00	221.29	138.30	-221.56	0.00	0.00	0.00
8,200.00	90.00	180.11	6,950.00	121.29	138.12	-121.56	0.00	0.00	0.00
8,300.00	90.00	180.11	6,950.00	21.29	137.93	-21.56	0.00	0.00	0.00
8,400.00	90.00	180.11	6,950.00	-78.71	137.74	78.44	0.00	0.00	0.00
8,500.00	90.00	180.11	6,950.00	-178.71	137.56	178.44	0.00	0.00	0.00
8,600.00	90.00	180.11	6,950.00	-278.70	137.37	278.44	0.00	0.00	0.00
8,700.00	90.00	180.11	6,950.00	-378.70	137.18	378.44	0.00	0.00	0.00
8,800.00	90.00	180.11	6,950.00	-478.70	136.99	478.44	0.00	0.00	0.00
8,900.00	90.00	180.11	6,950.00	-578.70	136.81	578.44	0.00	0.00	0.00
9,000.00	90.00	180.11	6,950.00	-678.70	136.62	678.44	0.00	0.00	0.00
9,100.00	90.00	180.11	6,950.00	-778.70	136.43	778.44	0.00	0.00	0.00
9,200.00	90.00	180.11	6,950.00	-878.70	136.25	878.44	0.00	0.00	0.00
9,300.00	90.00	180.11	6,950.00	-978.70	136.06	978.44	0.00	0.00	0.00
9,400.00	90.00	180.11	6,950.00	-1,078.70	135.87	1,078.44	0.00	0.00	0.00
9,500.00	90.00	180.11	6,950.00	-1,178.70	135.68	1,178.44	0.00	0.00	0.00
9,600.00	90.00	180.11	6,950.00	-1,278.70	135.50	1,278.44	0.00	0.00	0.00
9,700.00	90.00	180.11	6,950.00	-1,378.70	135.31	1,378.44	0.00	0.00	0.00
9,800.00	90.00	180.11	6,950.00	-1,478.70	135.12	1,478.44	0.00	0.00	0.00
9,900.00	90.00	180.11	6,950.00	-1,578.70	134.94	1,578.44	0.00	0.00	0.00
10,000.00	90.00	180.11	6,950.00	-1,678.70	134.75	1,678.44	0.00	0.00	0.00
10,100.00	90.00	180.11	6,950.00	-1,778.70	134.56	1,778.44	0.00	0.00	0.00
10,200.00	90.00	180.11	6,950.00	-1,878.70	134.37	1,878.44	0.00	0.00	0.00
10,300.00	90.00	180.11	6,950.00	-1,978.70	134.19	1,978.44	0.00	0.00	0.00
10,400.00	90.00	180.11	6,950.00	-2,078.70	134.00	2,078.44	0.00	0.00	0.00
10,500.00	90.00	180.11	6,950.00	-2,178.70	133.81	2,178.44	0.00	0.00	0.00
10,600.00	90.00	180.11	6,950.00	-2,278.70	133.63	2,278.44	0.00	0.00	0.00
10,700.00	90.00	180.11	6,950.00	-2,378.70	133.44	2,378.44	0.00	0.00	0.00
10,800.00	90.00	180.11	6,950.00	-2,478.70	133.25	2,478.44	0.00	0.00	0.00
10,900.00	90.00	180.11	6,950.00	-2,578.70	133.06	2,578.44	0.00	0.00	0.00
11,000.00	90.00	180.11	6,950.00	-2,678.70	132.88	2,678.44	0.00	0.00	0.00
11,100.00	90.00	180.11	6,950.00	-2,778.70	132.69	2,778.44	0.00	0.00	0.00
11,200.00	90.00	180.11	6,950.00	-2,878.70	132.50	2,878.44	0.00	0.00	0.00
11,300.00	90.00	180.11	6,950.00	-2,978.70	132.32	2,978.44	0.00	0.00	0.00
11,400.00	90.00	180.11	6,950.00	-3,078.70	132.13	3,078.44	0.00	0.00	0.00
11,500.00	90.00	180.11	6,950.00	-3,178.70	131.94	3,178.44	0.00	0.00	0.00
11,600.00	90.00	180.11	6,950.00	-3,278.70	131.76	3,278.44	0.00	0.00	0.00
11,700.00	90.00	180.11	6,950.00	-3,378.70	131.57	3,378.44	0.00	0.00	0.00
11,800.00	90.00	180.11	6,950.00	-3,478.70	131.38	3,478.44	0.00	0.00	0.00
11,900.00	90.00	180.11	6,950.00	-3,578.70	131.19	3,578.44	0.00	0.00	0.00
12,000.00	90.00	180.11	6,950.00	-3,678.70	131.01	3,678.44	0.00	0.00	0.00
12,100.00	90.00	180.11	6,950.00	-3,778.70	130.82	3,778.44	0.00	0.00	0.00
12,200.00	90.00	180.11	6,950.00	-3,878.70	130.63	3,878.44	0.00	0.00	0.00
12,300.00	90.00	180.11	6,950.00	-3,978.70	130.45	3,978.44	0.00	0.00	0.00
12,400.00	90.00	180.11	6,950.00	-4,078.70	130.26	4,078.44	0.00	0.00	0.00
12,500.00	90.00	180.11	6,950.00	-4,178.70	130.07	4,178.44	0.00	0.00	0.00
12,600.00	90.00	180.11	6,950.00	-4,278.70	129.88	4,278.44	0.00	0.00	0.00
12,700.00	90.00	180.11	6,950.00	-4,378.70	129.70	4,378.44	0.00	0.00	0.00
12,800.00	90.00	180.11	6,950.00	-4,478.70	129.51	4,478.44	0.00	0.00	0.00
12,900.00	90.00	180.11	6,950.00	-4,578.70	129.32	4,578.44	0.00	0.00	0.00
13,000.00	90.00	180.11	6,950.00	-4,678.70	129.14	4,678.44	0.00	0.00	0.00
13,100.00	90.00	180.11	6,950.00	-4,778.70	128.95	4,778.44	0.00	0.00	0.00
13,200.00	90.00	180.11	6,950.00	-4,878.70	128.76	4,878.44	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SHALLOT 1930-20H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5031.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5031.00usft (RIG)
<b>Site:</b>	1N-64W-19 CHIVE & SHALLOT PAD	<b>North Reference:</b>	True
<b>Well:</b>	SHALLOT 1930-20H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
13,300.00	90.00	180.11	6,950.00	-4,978.70	128.57	4,978.44	0.00	0.00	0.00	
13,400.00	90.00	180.11	6,950.00	-5,078.70	128.39	5,078.44	0.00	0.00	0.00	
13,500.00	90.00	180.11	6,950.00	-5,178.70	128.20	5,178.44	0.00	0.00	0.00	
13,600.00	90.00	180.11	6,950.00	-5,278.70	128.01	5,278.44	0.00	0.00	0.00	
13,700.00	90.00	180.11	6,950.00	-5,378.70	127.83	5,378.44	0.00	0.00	0.00	
13,800.00	90.00	180.11	6,950.00	-5,478.70	127.64	5,478.44	0.00	0.00	0.00	
13,900.00	90.00	180.11	6,950.00	-5,578.70	127.45	5,578.44	0.00	0.00	0.00	
14,000.00	90.00	180.11	6,950.00	-5,678.70	127.26	5,678.44	0.00	0.00	0.00	
14,100.00	90.00	180.11	6,950.00	-5,778.70	127.08	5,778.44	0.00	0.00	0.00	
14,200.00	90.00	180.11	6,950.00	-5,878.70	126.89	5,878.44	0.00	0.00	0.00	
14,300.00	90.00	180.11	6,950.00	-5,978.69	126.70	5,978.44	0.00	0.00	0.00	
14,400.00	90.00	180.11	6,950.00	-6,078.69	126.52	6,078.44	0.00	0.00	0.00	
14,500.00	90.00	180.11	6,950.00	-6,178.69	126.33	6,178.44	0.00	0.00	0.00	
14,600.00	90.00	180.11	6,950.00	-6,278.69	126.14	6,278.44	0.00	0.00	0.00	
14,700.00	90.00	180.11	6,950.00	-6,378.69	125.96	6,378.44	0.00	0.00	0.00	
14,800.00	90.00	180.11	6,950.00	-6,478.69	125.77	6,478.44	0.00	0.00	0.00	
14,900.00	90.00	180.11	6,950.00	-6,578.69	125.58	6,578.44	0.00	0.00	0.00	
15,000.00	90.00	180.11	6,950.00	-6,678.69	125.39	6,678.44	0.00	0.00	0.00	
15,026.45	90.00	180.11	6,950.00	-6,705.14	125.34	6,704.89	0.00	0.00	0.00	
BPZ @ 15026.45ft										
15,100.00	90.00	180.11	6,950.00	-6,778.69	125.21	6,778.44	0.00	0.00	0.00	
15,116.44	90.00	180.11	6,950.00	-6,795.14	125.18	6,794.89	0.00	0.00	0.00	
TD Well @ 15116.44ft										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
2,114.48	2,070.00	9 5/8"		9-5/8	13-1/2

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
379.25	379.25	0.00	0.00	Begin Nudge @ 379.25ft	
1,156.25	1,146.76	101.16	27.11	Hold Tangent @ 1156.25ft	
1,756.25	1,724.82	256.43	68.71	Change Tangent Direction @ 1756.25ft	
1,921.12	1,883.71	299.83	75.46	Hold Tangent @ 1921.12ft	
6,237.38	6,042.19	1,454.95	129.32	KOP @ 6237.38ft :: DLS = 8°/100'	
7,556.43	6,950.00	764.86	139.32	End Build/TPZ @ 7556.43ft	
15,026.45	6,950.00	-6,705.14	125.34	BPZ @ 15026.45ft	
15,116.44	6,950.00	-6,795.14	125.18	TD Well @ 15116.44ft	